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World telecom spending moves ahead again after down period

Cover art by Sharon K. Maniaci

World telecommunications spending, after a couple of slow years, is expected to increase slightly for the next serveral years. But predicting the longer term future is risky.

CZATDANA INAN, MARKET RESEARCH DIRECTOR, and LARRY LANNON, EXECUTIVE EDITOR

WORLD TELECOMMUNICATIONS spending will increase in 1986, but by very little.

In addition, the international telecommunications industry continues to be characterized by two types of participants: wealthy countries with sophisticated, nationwide communications infrastructures and developing countries with communications infrastructures inadequate to meet their needs and with little if any capital available to invest. The communications infrastructures of the developing countries continue to lag far behind the networks being maintained and expanded by the developed countries, a structural characteristic which bodes ill for the general economic competitiveness of the developing world.

Approximately $83 billion will be spent worldwide on telecommunications goods and services this year, up from the roughly $77 billion which was spent last year (Table 1). In real terms, however, worldwide spending will increase by only about 1.2%.

However small the spending increase will be in real terms, it does represent the first increase in the past 2 years. In fact, the recent trend has been for spending to decrease. In 1984, real spending decreased by 5.7% and in 1985 it was down by 3%.

Our annual international spending report is based on verified reports made by national telecommunications administrations and, where applicable, major private telecommunications service providers in January 1986, as well as estimates made by TELEPHONY, as indicated in Table 1.

Any analysis of international telecommunications spending must consider economic factors external to the telecommunications industry itself. Currently, the two dominant external factors are fluctuations in the value of the U.S. dollar and the rate of inflation.

Over the past 11 months, the value of

Continued on page 32

Table 1 1984-87 World Construction Expenditures ($000,000)

	In Current US$[a]				Budget % Change in Country's Currency		
	1984	1985	1986	1987[b]	1984-1985	1985-1986	1986-1987
Zone 1: North America							
United States							
Regionals	12,998.6	14,601.8	14,640.1	15,195.8	+ 12	+ 3	+ 4
Independents	4,840.4	5,303.6	5,553.8	5,317.3	+ 10	+ 5	− 4
Interexchange	3,852.2	4,154.9	3,815.0	3,800.0	+ 8	− 8	-0-
Canada							
Telecom Canada[c]	1,805.4	1,951.8	1,885.7	1,927.5	+ 10	+ 9	+ 2
Barbados	12.1	11.6	8.5	− 10.0	− 4	− 27	+ 18
Bermuda	9.5	4.7	5.6	6.4	− 51	+ 19	+ 14
Jamaica	27.9	21.4	20.0	25.0	+ 6	+ 20	+ 25
Trinidad & Tobago	98.9	101.5	67.3	33.3	+ 3	− 1	− 51
Subtotal:	23,645.0	26,151.3	25,996.0	26,315.3			
Extrapolated:							
Current US$	**24,889.5**	**27,527.7**	**27,364.2**	**27,700.3**			
Constant (1983) US$[d]	**24,178.6**	**25,024.9**	**25,900.8**	**26,807.3**			
Zone 2: Africa							
Kenya	5.8	4.4	10.5	11.6	− 13	+144	+ 12
South Africa	810.0	719.8	733.0	750.0*	+ 46	+ 13	+ 6
Zambia	23.6	38.6	37.0	22.6	+321	+ 12	− 39
Zimbabwe	32.1	47.9	51.4	47.6	+100	+ 15	− 8
Subtotal:	871.5	810.7	831.9	831.8			
Extrapolated:							
Current US$	**1,743.0**	**1,621.4**	**1,663.8**	**1,663.6**			
Constant (1983) US$	**2,031.7**	**2,102.8**	**2,176.4**	**2,252.6**			
Zone 3-4: Europe							
Austria	577.6	543.8	786.1	805.2	+ 8	+ 12	+ 2
Belgium	406.3	345.2	468.2	435.7	− 4	+ 5	− 4
Denmark							
Jydsk	61.1	63.2	120.8	137.7	+ 18	+ 52	+ 14
KTAS	85.9	90.0	139.0*	158.0*	+ 20	+ 50	+ 15
Finland							
PTT	132.6	127.9	150.1	163.4	− 4	+ 9	+ 9
Association	161.5	154.1	202.8	221.2	+ 8	+ 8	+ 9
France	3,096.0	4,140.0	4,482.3	4,800.0*	+ 5	+ 5	+ 5
Germany, FR	4,797.3	5,604.6	5,888.4	6,000.0*	+ 17	+ 5	+ 5
Italy	2,512.0	2,289.0	2,782.4*	2,850.0*	+ 6	+ 6	+ 6
Netherlands	338.7	357.5	544.7	562.8	+ 22	+ 17	+ 3
Norway	420.4	390.5	498.7	518.5	+ 9	+ 6	+ 4
Portugal (TLP)	78.0	74.4	96.8	106.4	+ 22	+ 20	+ 10
Spain	1,120.0	1,182.0	1,403.9	1,650.0*	+ 9	+ 9	+ 9
Sweden	572.0	580.8	845.1	966.0	+ 10	+ 25	+ 14
Switzerland	587.1	542.6	675.0*	695.0*	+ 9	− 4	+ 4
United Kingdom	2,512.0	2,289.0	3,000.0	3,400.0*	+ 21	+ 16	+ 15
Subtotal:	17,458.5	18,774.6	22,084.3	23,469.9			
Extrapolated:							
Current US$	**20,539.4**	**22,087.7**	**25,981.5**	**27,611.6**			
Constant (1983) US$	**23,416.9**	**24,236.5**	**25,084.7**	**25,962.7**			
Zone 5: South & Central America							
Brazil	844.0	850.0	850.0*	875.0*	+226	+232	+250
Costa Rica	15.3	12.5	19.6	28.5	+ 22	+ 47	+ 5
Chile	56.5	27.5	39.5	117.9	− 29	+107	+199
Colombia	19.1	11.9	28.4	93.6	− 21	+264	+230
Mexico	477.3	505.6	850.7	945.9	+ 64	+166	+ 55
Peru	38.0	21.6	92.2	96.9	+ 35	+471	+ 5
Uruguay	39.9	69.6	64.0	53.0	+203	+ 87	− 17
Venezuela	160.2	197.6	315.2	369.6		+178	+ 17
Subtotal:	1,650.3	1,696.3	2,259.6	2,580.4			
Extrapolated:							
Current US$	**2,357.6**	**2,423.3**	**3,228.0**	**3,686.3**			
Constant (1983) US$	**2,638.2**	**2,730.6**	**2,816.1**	**2,925.0**			

Table continues on page 32

Table 1 1984-87 World Construction Expenditures ($000,000) Continued

	In Current US$[a]				Budget % Change in Country's Currency		
	1984	1985	1986	1987[b]	1984-1985	1985-1986	1986-1987
Zone 6: Pacific							
Australia	1,125.0	977.0	1,057.0	1,055.0	+ 8	+ 11	-0-
Indonesia	138.2	254.7	640.9	704.9	+100	+163	+ 11
New Zealand	136.4	150.2	241.1	241.1	+ 52	+ 45	-0-
Singapore	150.7	285.5	257.8	323.6	+ 95	- 12	+ 25
Thailand	220.9	199.3	426.4	422.4	- 7	+112	- 1
Subtotal	1,771.2	1,866.7	2,623.2	2,746.4			
Extrapolated:							
Current US$	2,214.0	2,333.4	3,279.0	3,433.0			
Constant (1983) US$	2,894.5	2,995.8	3,100.7	3,209.2			
Zone 7: USSR[c]							
Current US$	6,200.0*	6,448.0*	6,795.9*	6,974.1*	+ 4	+ 4	+ 4
Constant (1983) US$	6,210.0	6,427.4	6,652.3	6,885.1			
Zone 8: Far East							
Hong Kong	64.2	76.6	121.4	109.4	+ 19	+ 59	- 10
Japan	7,236.5	6,841.2	7,080.6*	7,100.0*	- 5	+ 3	+ 3
Korea, Rep	1,318.9	1,391.3	1,422.5	1,494.3	+ 9	+ 7	+ 5
Taiwan	397.1	473.3	685.4	698.3	+ 17	+ 45	+ 2
Subtotal	9,016.7	8,782.4	9,309.9	9,402.0			
Extrapolated:							
Current US$	11,270.9	10,978.0	11,637.4	11,752.5			
Constant (1983) US$	11,833.2	12,247.3	12,675.9	13,119.6			
Zone 9: Middle East							
India	607.3	585.6	658.8	635.2	- 13	+ 12	- 4
Kuwait	134.7	174.9	96.0	102.7	+ 36	- 47	+ 7
Oman	162.0	192.0	81.0	100.0*	+ 19	- 58	+ 7
Syria	68.1	94.9	104.2	87.2	+ 39	+ 10	- 16
Subtotal	972.1	1,047.4	940.0	925.1			
Extrapolated:							
Current US$	3,240.3	3,491.3	3,133.3	3,083.7			
Constant (1983) US$	3,369.1	3,487.0	3,609.1	3,735.4			
GRAND TOTAL							
Identified Countries	61,585.3	65,577.4	70,759.8	73,245.0[b]			
Extrapolated:							
Current US$	72,454.7	76,910.8	82,993.1	85,905.1[b]			
Constant (1983) US$	76,572.2	79,252.3	82,026.0	84,896.9			
GROWTH in Current US$ versus Constant (1983) US$	-5.7%	-3.0%	+1.2%	+1.2%			

Source: Telephony Market Research

*Estimated by Telephony

a: Exchange rates correspond to U.S. Federal Reserve System rates on the first business day of each year.
b: At 1986 exchange rates.
c: Does not include Telesat Canada, the satellite arm of Telecom Canada.
d: Assumes 3.5% average inflation during 1983-87 (U.S. GNP deflator).
e: Estimated on basis of 27.8 million subscribers and reports that 1986-90 five-year plan sets telecommunications as a "key economic objective."
f: Assumes Nippon Telegraph & Telephone will stabilize spending at 1985 level.

the dollar has fallen 20% against other major currencies. Recently, however, the dollar has risen in response to plunging oil prices. That reversal is likely to be short-lived, as the effects of recent cuts in oil prices again subordinate themselves to the stated policies of the powerful "Group of Five" industralized nations.

The Group of Five consists of the U.S., Japan, West Germany, France and the U.K. In order to improve deteriorating U.S. trade balances, the Group of Five has adopted a policy of favoring a lower exchange rate for the dollar, thus, among other things, making goods produced in the U.S. more attractive in foreign markets. The Group of Five has affirmed its intention to pursue that policy since the latest drop in world oil prices.

The decline in the dollar during the last 11 months has pushed exchange rates for major currencies back to 1983 levels, combating inflationary tendencies and promoting the first real growth in world telecommunications spending since 1983. Our study conservatively assumes that there will be a 3.5% inflation rate for the period 1983-87. Thus,

If world telecommunications spending in 1986 were to remain at the same level as 1983 spending, the world would spend about $82 billion this year. The $0.9 billion difference between $82 billion and the actual projected expenditure of $82.9 billion represents the real growth in world telecommunications spending. The world is expected to increase its telecommunications spending by 1.2% again in 1987. That would provide a figure of about $85.9 billion expressed in current dollars which is 1.2% over the $84.9 billion benchmark figure for 1987.

For the time being anyway, the importance of inflation for the global telecommunications industry thus seems to be receding. In national terms, however, inflation continues to play a dominant role in many cases.

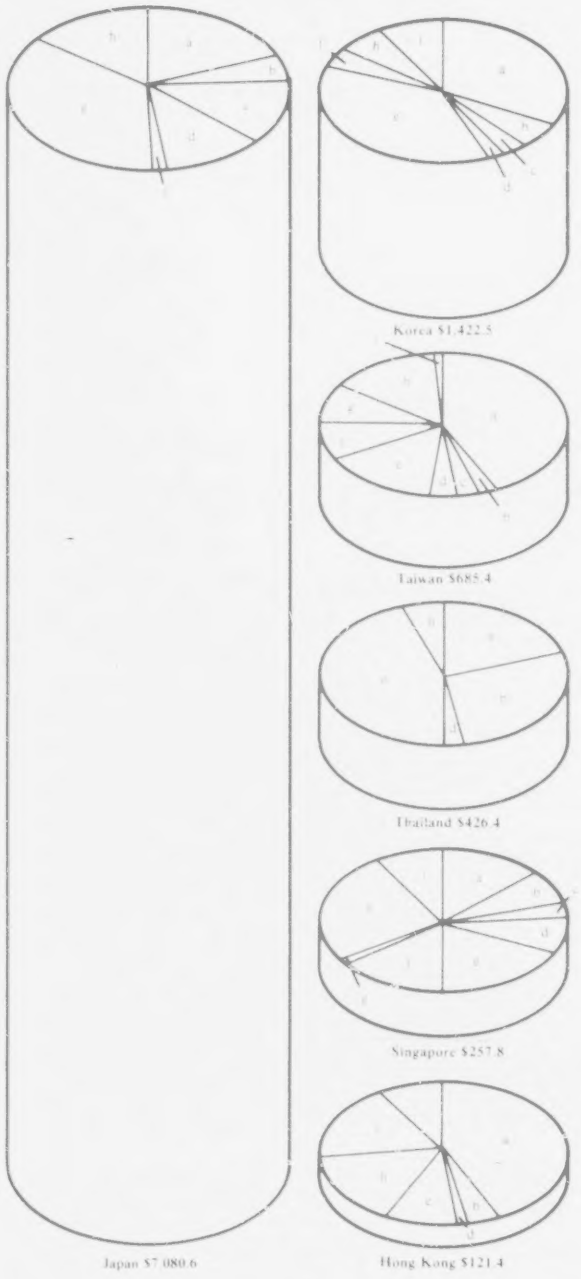
As always general conclusions drawn about the international telecommunications industry may be perfectly valid and even useful, but also may actually obscure the reality that the differences among nations are as great if not greater than ever. For instance, the rate of inflation varies throughout Europe; consequently, inflation outstripped telecommunications spending by a full 2.1% in 1984 in France, while telecommunications spending in Sweden surpassed the rate of inflation by a whopping 7.9%. And the differences between the developing nations and the developed nations are so great they make differences between developed countries look insignificant.

A group of 10 countries—Canada and the U.S. in North America; France, West Germany, Italy, the Netherlands, Sweden and the U.K. in Europe; and Japan and Taiwan in the Far East—will spend $51.2 billion in 1986, a full 62% of total world telecommunications spending. If South Korea and Australia are included, the top dozen countries will account for roughly two-thirds of world spending, or $53.6 billion.

Four of that group of 12 countries are located in the Far East, which reflects that region's growing importance in both the international telecommunications industry and the world economy. If the U.S. and Canada are included among Pacific Basin countries, it becomes clear that the long dominant Atlantic axis (Europe-North America) is rapidly ceding place to a muscular Pacific axis. Figure 1 examines the distribution of telecommunications investments in Japan, South Korea, Taiwan, Thailand, Singapore and Hong Kong in greater depth.

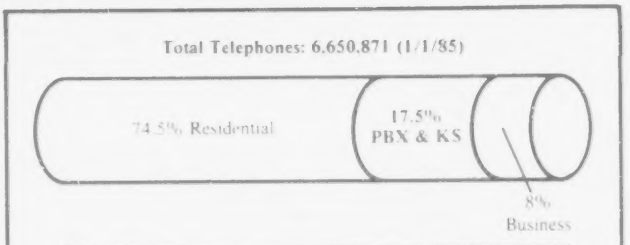
A cursory examination of the geo-

Figure 1 The Far East and Pacific: Growing Markets


Japan $7,080.6
Korea $1,422.5
Taiwan $685.4
Thailand $426.4
Singapore $257.8
Hong Kong $121.4
a. Local, Toll & Local Toll Switching
b. Transmission & Carrier Equipment
c. Microwave, Mobile & Satellite Equipment
d. Voice & Datacom CPE
e. Underground Cable
f. Submarine Cable
g. All Other Cable
h. Land, Buildings & Vehicles
i. Other, including computers, office equipment & furniture, misc. tools and material, etc.

Source: Telephony/Market Research

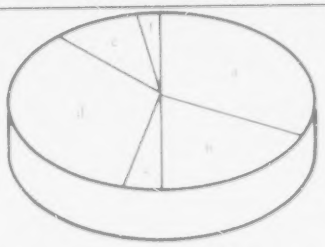
Figure 2 Mexico: Some Business Economics



PBXs & Key Systems: Manual vs. Automatic

	Manual		Automatic	
	Systems	Phones	Systems	Phones
PBXs				
Under 25 Lines	13,752	158,538	1,433	27,288
Under 50 Lines	3,805	126,830	655	21,830
Under 100 Lines	2,105	118,904	362	20,466
101-250 Lines	2,054	245,735	304	42,296
Over 250 Lines	359	142,687	61	26,650
	22,075	792,694	2,815	136,440
Key Systems	na	198,173	2,136	34,110
Total PBX & KS Phones		990,867		170,550

Figure 2a
Mexico $850.7 in 1986



a. Local, Toll & Local Toll Switching	31.9%
b. Transmission & Carrier	18.9%
c. Voice CPE	3.0%
d. Total Cable	34.6%
e. Land, Buildings & Vehicles	7.6%
f. Other	2.0%

Source: Telephony/Market Research

graphic distribution of the 12 countries which dominate international telecommunications spending also illustrates the extent of the problem facing most developing nations. None of the 12 countries are located in Africa or Central or South America. Nor are any located in Western or Southern Asia. Only Korea, in fact, is located on the Asian mainland. None of the 12 belongs to the Soviet bloc of countries.

Telecommunications development requires investment and the necessary investment is being made largely in countries with the most competitive and developed national economies. Most of the world's population does not live in those countries and cannot expect to benefit much from the modest surge in international telecommunications investment expected during the coming 2 years. But the real threat to developing countries lies not in the present but the future.

Mexico is one developing country facing difficult decisions. The national economy has been in the doldrums for several years, and was further damaged by the most recent rounds of oil price cuts. The country is already burdened with a massive national debt. And the tragic earthquake which devastated Mexico City last fall imposed an additional financial weight on shoulders already carrying a heavy load.

Telefonos de Mexico (TELMEX) is determined to accelerate the development of the country's telecommunications infrastructure. The heavy damage done by the earthquake to its facilities in central Mexico City seem to have increased the resolve of its decision-makers. TELMEX plans to spend $850.7 million in 1986 and $945.9 million in 1987, dramatic increases from the $505.6 million spent in 1985 and nearly double the $477.3 million spent in 1984. Figure 2 examines the distribution of services and investments in Mexico in more detail.

Where will the money come from? In 1984, Mexico's economy, though battered, was in better condition than it is today and the country did not have to contend with the effects of the earthquake. Oil prices were higher a few years ago, and Mexico depends on its oil earnings to pay its foreign debt and, eventually, to fuel economic growth. The falling price of the dollar does help some countries, but the price of the Mexican peso is falling even faster.

Yet if TELMEX does not pursue a program of accelerated development, Mexico's position in the competitive world economy will be further jeopardized. Mexico's dilemma, though particularly hard, is characteristic of the problem which faces all developing countries.

Countries which lack competitive telecommunications infrastructures find it difficult to compete in the world economy. As developed countries spend more and more on their telecommunications systems, developing countries which do not respond in kind find themselves less and less competitive. In the contemporary world, sophisticated telecommunications infrastructures are not the effect of economic prosperity, they are one of its primary causes. □

The source

THIS article has been based on a report by Telephony/Market Research titled, "World Telecom in 1986-87: Delivering on Past Promises."

The report, which will be approximately 200 pages long, will be available in early March.

For more information, contact Czatdana Inan, Market Research Director, Telephony/Market Research, Telephony Publishing Corp., 55 E. Jackson Blvd., Suite 1100W, Chicago, Ill., U.S. 60604; telephone: (312) 922-2435. □